March 2013

RBB Brief 41

RBB | Economics

Do efficiencies ever deliver? Lessons from the *UPS/TNT* case

On 30 January 2013, the European Commission announced its decision to prohibit the proposed acquisition of TNT Express ("TNT") by UPS.[1] The transaction would have reduced the number of major players in the global express delivery business, which comprises DHL, UPS, TNT and FedEx, from four to three. After a Phase 2 investigation, the Commission concluded that significant anticompetitive effects would be likely to occur in most European countries, despite the fact that DHL would have remained the largest supplier in many of those countries post-merger.

The decision is notable for two reasons. First, it represents one of the few 'gap' cases since the adoption of the new merger test in 2004, in which the Commission has reached an adverse unilateral effects finding in markets where the merged entity would not be the market leader. Furthermore, as the case is Commissioner Joaquín Almunia's third prohibition after *Aegean Airlines/Olympic* and *Deutsche Börse/NYSE Euronext*, some commentators have suggested that this decision signals a trend towards a more interventionist approach by the Commission and to an increasingly rigid approach to remedies.[2]

Second, the defence put forward by UPS relied unusually heavily on efficiencies as a countervailing factor to the potential loss of competition caused by the merger. Specifically, UPS claimed that efficiencies would be extremely significant (in the order of 0.5 billion Euros) and would offset any anticompetitive effects that might otherwise be expected to arise as a result of the merger. However, the Commission ultimately concluded that *"in many countries efficiencies passed on to customers would not outweigh price increases caused by the lessening of competition"*, and as such it appears to have rejected a large portion of the claimed efficiencies. The *UPS/TNT* case therefore raises, once more, questions on the impact that efficiencies can be expected to have in merger assessment and on the extent to which parties should rely on efficiencies in their defence.

In this *Brief*, we examine the role of economic analysis in the *UPS/TNT* case and, in particular, consider the implications for the efficiency defence.

Four-to-three or three-to-two?

The main providers of express deliveries are the four so-called "integrators", firms who control a complete integrated air and ground delivery network and operate sophisticated supporting IT systems. While a myriad of smaller ground-based operators offer some limited express services in addition to slower "deferred" services, the Commission dismissed the constraint imposed by these firms because of their lack of air networks and their lower levels of reliability. As suggested by the Commission's press release, the widespread application of price discrimination also played a key role in this context:

"Most customers negotiate discounts, which can be substantial. In this context, service providers collect detailed information on customers, notably on their expected and past shipping behaviour, volumes and specific requirements for delivery speed. This allows service providers to identify customers that would be unlikely to consider deferred services as an option and would therefore more easily accept a price rise for express services." [3]

In short, the existence of customers that would be willing to substitute express and deferred services would not offer any protection to those that are unable or unwilling to switch. As a result, the Commission defined a separate market for express services.

1. *UPS/TNT Express,* case M.6570. RBB Economics advised FedEx throughout the investigation conducted by the European Commission.

2. See, for example, Aoife White's article on Bloomberg.com *"Almunia Gets Tough as EU Prepares to Block UPS's TNT Bid"*, dated 15 January 2013. Moreover, on 27 February 2013, the Commission announced a further prohibition decision in response to Ryanair's latest attempt to acquire Aer Lingus.

3. See *"Mergers: Commission prohibits proposed acquisition of TNT Express by UPS – frequently asked questions"*, available at http://europa.eu/rapid/press-release_MEMO-13-48_en.htm.

The next key question was whether FedEx, the smallest of the integrators in Europe, would be able to constrain effectively the new entity and DHL post-merger. In other words, would it be more appropriate to characterise the transaction as a three-to-two rather than a four-to-three? To answer this question, the Commission relied on a number of economic analyses that demonstrated that FedEx, which has low market shares in a number of countries, did not exercise a significant competitive constraint on UPS and TNT due to the lack of density and scale of its European network. Price discrimination was again instrumental in the Commission's ultimate determination on the competitive constraint exerted by FedEx. Indeed, the fact that some European express customers would be able credibly to threaten to switch to FedEx would offer no protection to those customers that would not consider it a suitable alternative.

As such, the proposed transaction effectively constituted a three-to-two concentration for many customers, with only DHL remaining as a significant competitor to the merged entity. This, coupled with the high barriers to entry and the insufficient countervailing buyer power that characterise this market, led the Commission to fear that the merger would result in a significant loss of competition.

Empirical support for the Commission's concerns was provided by a price concentration analysis submitted by the merging parties themselves. Price concentration analyses seek to use existing differences in the levels of market concentration within an industry to identify the relationship between prices and concentration. If such a relationship exists, estimates of that relationship may provide useful information regarding the potential impact on prices of the change in concentration that would result from a merger.[4]

The merging parties' economists examined how the prices charged by UPS and TNT varied with the number of competitors they faced across different areas, after accounting for other factors that may have affected their pricing. The results of their analysis are summarised in the Commission's press release, which states:

"[a significant loss of competition] has been corroborated by the price concentration analysis conducted by UPS. …This analysis predicted that prices would increase in 29 EEA countries, despite DHL's position as market leader in a number of countries. The Commission performed its own price concentration analysis, which confirmed this outcome but forecasted higher price increases than UPS' model."[5]

Having explicitly acknowledged the potential for the proposed transaction to give rise to widespread price increases, the merging parties' economists shifted the entire emphasis of their defence onto the role of efficiencies as a potentially offsetting factor.

Efficiencies to the rescue?

It is well understood that profit-maximising firms will often wish to pass on some portion of any cost reduction to customers via lower prices in order to achieve additional sales volumes.[6] In particular, if a merger leads to a reduction in the merged firm's marginal costs, this will create a clear incentive to reduce prices that may partly or entirely offset any incentive to raise price due to the lessening of pre-merger competitive constraints. As a result, efficiencies can neutralise or outweigh the adverse effects of a merger that would otherwise have given rise to unilateral effects.[7]

In its defence of the proposed transaction, UPS claimed that enormous cost savings, estimated to be in the range of €400-€550 million per year, would be achieved as a result of the acquisition, in particular with respect to management and administrative overheads, ground transport and its air network. Effectively, while conceding that the merger would

4. In essence, this type of analysis represents a kind of informal simulation process in which the likely impact of the proposed increase in concentration is measured by benchmarking the prospective post-merger firm's position against existing markets in which concentration has already reached the post-merger level.

5. See the already cited press release, available at http://europa.eu/rapid/press-release_MEMO-13-48_en.htm.

6. More specifically, economic theory makes clear that the relevant cost reductions to consider are those that affect firms' marginal pricing incentives. This leads to a difficult issue as to how to determine which costs are variable over the appropriate time horizon for assessing mergers. In practice, competition authorities tend to focus on efficiencies related to firms' short run variable costs.

7. By way of example, consider a firm that has a variable production cost of €8 and a pre-merger profit maximising price of €10. Now assume that a merger would reduce the competitive constraints this firm faces, so that in the absence of efficiencies the merged entity would find it profitable to raise its margin from €2 to €3 per unit. However, if the transaction were to reduce the firm's costs by a significant amount (say €2), then even with the increase in margin, its optimal price may actually end up being lower post-merger.

be likely to remove an important competitive constraint, the parties argued that this would be more than offset by these efficiencies. However, as described in the Commission's Horizontal Merger Guidelines ("the Guidelines"), in order for the Commission to accept such an argument as a valid efficiency defence, three conditions must be satisfied.[8]

First, the efficiencies must be merger-specific. In this regard, the Commission accepted that at least some of the efficiencies claimed by the parties were indeed unlikely to be achievable other than by the proposed transaction and thus satisfied this requirement.

Second, consumers must benefit from the efficiencies. Here the Commission concluded that the savings that UPS would make with respect to ground and air transportation would be likely to benefit consumers. However, it found that the overhead costs savings that UPS would make would be unlikely to be passed through to consumers, essentially because these appeared to be fixed cost reductions that would not translate into downward pressure on prices.[9]

Third, the efficiencies must be sufficiently certain and substantial to counteract any anticompetitive effects. It is notable that the Commission did not take into account the cost savings from ground transportation because it was not sufficiently clear that these savings would accrue specifically to express deliveries. Despite apparently accepting that these cost reductions may benefit customers, the Commission appears to have taken a relatively narrow perspective and disregarded them because they would principally act to reduce the price of *other* delivery services, and would not substantially offset the anticompetitive impact of the transaction with regard to express deliveries.

The Commission therefore ultimately only accepted the parties' efficiency arguments with respect to air transportation. After calculating the part of these cost savings that would be likely to be passed on to consumers, the Commission found that these efficiencies would not outweigh the price increases caused by the lessening of competition, as predicted by the price concentration analysis. In the end, the Commission therefore concluded that the transaction would be likely to give rise to anticompetitive effects in 15 European countries.

Although UPS had offered to divest TNT's subsidiaries in these and other countries and to allow the buyer to access its intra-European air network for five years, the Commission eventually reached the conclusion that the proposed remedies were inadequate to address the identified competition concerns, particularly given that it *"had serious doubts as to the ability of the very few potential purchasers that expressed their interest to exercise a sufficient competitive constraint on the merged entity in intra-EEA express delivery markets on the basis of the remedies offered".*[10]

Lessons and conclusions

At the press conference announcing the Commission's decision to prohibit the transaction, Commissioner Almunia implicitly rejected the suggestion that he has been more interventionist than his predecessors by stressing that roughly 800 mergers have been cleared since he took over in February 2010. Indeed, a review of the Commission's assessment does not convincingly establish that this case marks a significant tightening of mergers policy. In particular, the recognition of the relevance of price discrimination, a thorough economic analysis of the competitive constraints exerted by FedEx and ground-based operators, coupled with price concentration analyses conducted by the Commission and by the parties themselves that pointed to price increases post-transaction, made a unilateral effects finding very hard to overturn.

8. See paragraphs 78-88 of the Guidelines.

9. More specifically, the Commission's press release noted that efficiencies related to *"overhead costs were unlikely to benefit customers, because their allocation to individual packages and therefore pricing decisions for customer contracts could not be verified".*

10. See *http://europa.eu/rapid/press-release_IP-13-68_en.htm.*

As to the role of efficiencies, the *UPS/TNT* case has provided further confirmation that merging parties face extremely tough hurdles when putting forward an efficiency defence and, as such, it remains questionable whether efficiencies will ever play an important role in decisions under the Merger Regulation in any but the most exceptional cases. While this is disappointing, it is not a revelation if one considers that even though the Commission has accepted certain efficiencies in some recent cases, efficiency defences have, since the introduction of the Guidelines, never been sufficient to overturn a finding of adverse effects on competition.[11] Indeed, the Commission can in general be criticised for taking an overly sceptical and narrow view of efficiencies despite the Guidelines explicitly mentioning them as a potentially important countervailing factor. For example, the distinction between cost savings that will affect pricing and those that will not is far more complex than a simple split between fixed and variable costs, and often some costs that in accounting terms are deemed 'fixed' may well affect marginal incentives.[12]

At the same time, economists must bear some of the responsibility for placing more weight on efficiency arguments than is warranted, thereby neglecting other potentially more relevant lines of analysis. One root of this problem is the increasing and often uncritical reliance on simplistic theoretical models of unilateral effects, which invariably generate predictions of post-merger price increases from horizontal mergers.[13] These models have been developed as an apparently more sophisticated alternative to simple reliance on market shares, but they have come to be relied upon to the point at which they imply a deterministic link between industry structure and competitive outcomes. This has the perverse effect of reinstating the same structural presumptions that were challenged and largely discredited by industrial organisation economists in the last century. Within the restrictive confines of such models, efficiencies are seen as the only antidote to the harmful price effects that are predicted to arise in every horizontal merger, which places the merging parties in the difficult position of playing catch-up with the merger control authorities.

A more enlightened approach would be to adopt a less uncritically accepting view of the use of these unilateral effects models, focusing the analysis on key countervailing factors that may significantly reduce the risk of significant post-merger price increases. This includes the need to incorporate real world factors into the competitive analysis that cannot be expressed in a couple of lines of algebra, such as the ability of large buyers to take steps to counteract the market power of the merged entity, the scope for entry/expansion and rivals' ability to reposition their products. As acknowledged in the Guidelines, these factors can have significant effects on market outcomes, and critically in the real world have been shown to have had such effects.

None of this is to say that advisers should abandon enquiries about the rationale for mergers or any anticipated efficiency gains. In practice, though, the main pay-off from an understanding of the expected efficiencies arising from a horizontal merger is likely to be the insights this gives about the nature of competitive rivalry in an industry, which in turn will assist in gathering evidence on market dynamics and likely supply-side responses – factors that play a critical role in the analysis of difficult cases. Such evidence should not be an after-thought. It deserves a central role in a more rounded unilateral effects assessment that justifies a departure from the artificial constraints imposed by simple theoretical models.

11. For example, apart from *UPS/TNT,* the Commission also accepted some efficiencies in *Deutsche Börse/NYSE*. However, both cases ended up being prohibited.

12. For example, suppose that a merger gives the new entity improved technical knowledge that allows it to build a new production plant at a lower capital cost than either merging party could have done beforehand. Even though capital costs would typically be considered as 'fixed' costs, the greater efficiency in this cost element could allow the post-merger firm to embark on investments in capacity and output expansion that would not otherwise have been viable, and as such these cost reductions should truly fall in the 'marginal' category for the purposes of the assessment of the firms' pricing and output decisions.

13. For example, the Upwards Pricing Pressure ("UPP") test proposed by Farrell and Shapiro explicitly suggests that all horizontal mergers between competitors will give rise to price increases unless they generate (sufficient) offsetting cost efficiencies. Farrell and Shapiro conjure up an assumed 10% efficiency benefit to prevent the UPP test from catching all horizontal mergers, but in the context of a detailed merger investigation it turns out to be harder to prove the existence of such offsets.